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The First Three Years of Life: An Overview of a New Frontier of Psychiatry

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Psychiatry must become more concerned with the first three years of life if the roots of later pathology are to be identified so that preventive measures can be undertaken. In this overview the author interweaves newer information with what is already known about early development. He includes the concept of "organizers" in the infant's experience, which form the beginnings of integration of functions; these include vision, pain, separation anxiety, body image development, learning of body control, and exploration of property rights.

MY TASK in this report is to bring more clearly into focus what is slowly but predictably becoming the new frontier of psychiatry—the first three years of life. It has been summarized as the task of helping a small, helpless, mindless being become "humanized," a member of society, an individual in his own right, and to develop so-called civilized patterns of control over his impulses(1).

The recently completed studies by the Joint Commission on Mental Health of Children (2) indicate that if we are to ever think of an era of prevention in the field of mental health, we must become increasingly involved with the relatively neglected first years. Such involvement is necessary not only in our understanding, treatment, and

prevention of disordered behavior, i.e., in dealing with mental illness and the promotion of mental health. It is also necessary if we are to respond to the major problems facing our communities and nation such as violence and crime; racism; the nonlearners who become the unemployed; and the personality characteristics of hopelessness, helplessness, passivity, dependency, apathy, alienation, suspiciousness, and depression in our Inner Cities.

We have known for a long time that the roots of many of these major problems are in childhood, but more recently we have been forced to look at how early—when even Head Start programs have been found to be too late for many of our young. This survey will attempt to interweave the newer information with what we already know about what goes on developmentally. It interweaves "hard" and "soft" facts, but at this stage of our information if we disregard the "soft" facts we close doors that can lead to more knowledge.

Prenatal Stage

If we are to start at the beginning of life for our understanding of normal and abnormal development, we must start measuring age, as do the ancient Chinese, from the date of conception. In other words, a baby is usually nine months old at birth. Embryology has gone out of fashion in many of our medical schools, but a new type of behavioral embryology is evolving and must eventually be included as a basic science for psychiatry. At this point in our information, we have only hints about the earliest stages the brain-body interactions go through. We can recall that Freud pointed

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out (3) (to the discomfort of some current psychoanalytic theoreticians) that by the time of birth it is already established what the predominant defensive patterns of the individual will be—for example, whether they will be predominantly hysterical or compulsive.

We do not go as far as Gilbert and Sullivan did when they wrote that every man now alive was born a liberal or conservative. But the finger increasingly points to the prenatal period to help us understand the psychosomatic problems of later life. We must ask ourselves when it is that an organ or an organ system develops a pattern of reaction to stress. Is it when there is acute or chronic stress during its formation that a pattern of response is established, such as when the oxygen supply is suddenly threatened? Does this imprint the kind of response that organ or system will make when later stress is encountered?

We are learning that pathological or potentially destructive defensive responses, such as those that would result in hypertension, can be modified or retrained later; this has been demonstrated by some of the behavior modification techniques being developed at Rockefeller University. I hope the day will come when we can understand the combinations of genetic, metabolic, and environmental influences (Can we talk of the social life of a fetus?) that determine such patterns of functioning. What determines in these first nine months of life the nature and dosage of aggressive energy in any individual?

Thus far there have been postulated a so-called "umbilical stage" (4, 5), when the hematological system learns a pattern of response to stress (we cannot yet say anxiety) and a "deglutitive stage," when the fetus first learns to swallow, etc. So we are on the verge of finding answers to some of these questions. There are increasingly ingenious devices for interventions directly into the uterus that will permit monitoring and eventually corrective approaches with the fetus. At this point in time it is postulated that the major single determinant of what kind of fetus we are dealing with is the nutritional state of the mother at the point of conception (6). Are we on the edge of a change in the dating patterns of our youth

in which every date must include a good meal?

The Newborn

Once born, the individual enters a period in which the brain will grow more rapidly in the next 18 months than it ever will again. The inputs during this period of brain growth begin to build on the foundations begun in prenatal life. This is the time when the brain is most plastic and when appropriate interventions to correct pathology can be most effectively made. The experience of our British colleagues working in the field of cerebral palsy illustrates this point (7). They have found that with appropriate diagnosis and active treatment in the first 18 months of life, when the brain is most plastic, they can prevent most of the spasticities and the skeletal deformities such as the kyphoses and can even eliminate the athetoses.

Information is becoming available from work not only with animals but also with human infants that indicates, as Negera (8) has pointed out:

1. The genetic potential, in terms of the development of the anatomical structures of the brain, is not reached at birth. Many such structures are in fact far from complete at such a time.
2. The blueprint of that genetic potential (determined by the chromosomes and genes) is such that in order to be unfolded to its fullest, organic, anatomical-maturational processes of the brain structures must continue after birth. But such continuation is not only dependent on internal, embryological maturational forces, but—and this is what I want to highlight—in the interaction of such forces with different forms of external stimulation without which interaction the embryological maturational blueprint will not unfold to its full potential. Reception of such stimuli, as contained in the ministrations of the mother to her baby, in the mother-child relationship, seems absolutely necessary. Furthermore, this kind of external stimulation seems to influence the internal, anatomical-maturational processes at least by three different mechanisms:
 - a. It may favor progressive complex arborization of dendrites during the first few months of life. The significance of this in terms of later function is clear.
 - b. It increases the degree of vascularization of certain anatomical structures of the brain.
 - c. It increases and furthers the process of myelination. Myelination and function are closely related, as we know.

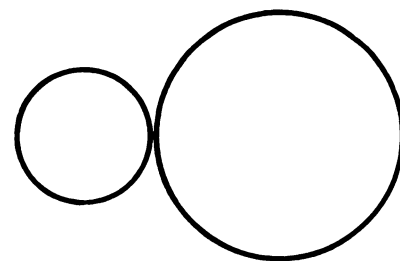
Studies in kittens blindfolded from birth most dramatically demonstrate the contrast in vascularization and myelination in the visual cortex and the tracts involved. It seems to follow that modifications that result from inappropriate or inadequate environmental stimulation lead to modifications of the developing brain structure that may lead in turn to important qualitative differences in the ability to perform all the ego functions associated with such structures.

We also know from embryological studies in animals and humans that there are critical periods for the development of specific organ functions; that is, developmental time limits exist, and if the right type of stimulation is not forthcoming during that critical time, the result may be a structure not necessarily damaged but one that has not developed to its full potential. This type of information begins to explain the problems of hospitalism as defined by Spitz, who described it as "the appalling damage to early ego development that results from growing up under conditions of deprivation or inappropriate types of human contact" (1, 9). Resulting developmental lags can be undone, which indicates to some of our investigators that we cannot talk of *critical* periods of development for the human but rather *optimal* periods (10). However, the evidence strongly suggests that the individual can never completely recapture his original potential once the optimal period for development of a part or a function has passed.

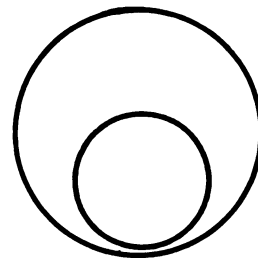
The major developmental stages from birth to maturity are well documented (11, 12). Our information in this area, which comes from child development research, psychoanalytic theory, and clinical studies, is more complete. But we should realize that the psychoanalytic formulation of oral, anal, and the beginning of phallic stages of development in the first three years describes only headlines. If we look at the fine print, we see dozens of stages—at least one for every new part of the body as it comes into voluntary control and for every new function as it develops. Each new part is experimented with in terms of "How can this new found part of me be used in the service of the instincts?" i.e., for survival, for pleasurable use, for aggressive expressionism. This holds true for each of the ego functions. We understand some of these,

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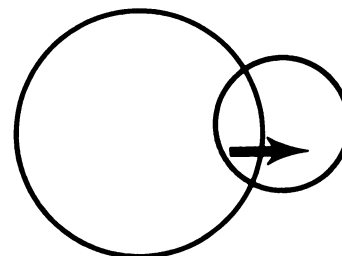
FIGURE 1
Infant-Mother Relationship in the Early Months of Life



A Tangential relationship of newborn to mother



B Complete dependence of infant on mother



C Beginning of independence of infant from mother

such as cognitive development (to which Piaget [13] and many others have made important contributions) better than others.

Even as we have established at least some understanding of the stages through which the young organism goes in the development of personality, we are only beginning to look at them in terms of their influence on individual differences in constitutional make-up. For example (taking the most important first step in personality development), as perception and awareness develop the baby moves from a relatively unrelated stage at

[35]

birth to a picture of himself as a completely dependent part of another person; this normally occurs by three to five months (see figure 1). If something intervenes that makes this step difficult to achieve, a range of distortions in the individual's concept of dependency, closeness, and trust can result. At one extreme of this range is the child who says it can be too difficult or uncomfortable to make this step and he elects to remain unrelated, i.e., he becomes autistic and later develops a childhood psychosis, if the condition remains unmodified.

Developmental Distortions

Particularly within the last 20 years, we have come to recognize that there are a number of constitutionally based developmental distortions early in life that lead to the individual differences that can place an infant at risk in making this first step in emotional and personality development (14). If we match up constitutional vulnerabilities with assets, we will have a much better picture of how a baby needs to be handled to help him achieve optimal development, beginning with object relationships.

To illustrate, let us look at the problems faced by babies born with special hypersensitivities. Tactile hypersensitivity—experiencing being touched as painful—provides a hazard to being comfortable with closeness and to seeing oneself as part of another person. If the baby does not elect to remain unrelated, if the need to be part of another person is sufficiently great, he will make the first step. However, the resulting picture can include a long-lasting expectation that dependency involves pain. Since dependency is part of most close relationships, masochism can have its beginnings here—or, to put it another way, primary masochism can be perpetuated. Some individuals can carry this a step further and say that pain is not only a need, it is also a pleasure.

On the other hand, if this individual distortion in makeup is recognized early and properly handled, it will not interfere with normal early development; usually it is compensated for so that before the end of the first year it is no longer clinically evident. For example, one mother, when her baby's hypersensitivity was pointed out as the basis

for his irritability and his turning away from her, said "Let me put him on a pillow and hold the pillow when I feed him, if it is important for him to have closeness. That doesn't make him uncomfortable." In contrast to this is a ten-year-old girl in our treatment school who never can let anyone touch her and is mistrustful of any dependency situation; she started life as this kind of baby.

Taking Stock of the Infant

It is now possible to take an inventory of constitutional factors early in life so as to devise methods of handling that can help prevent poor answers to the problems of early personality development. We can take note of imbalances, deviant arousal patterns, low energy and "sending power," liabilities, disturbances in integrative capacities, the threshold for stimuli, special sensitivities, and structural difficulties. Essential in any such inventory is taking stock not only of the handicaps or functional distortions but also of the baby's assets. Thus we rate adequate sending power, curiosity, and flexibility as measured by the ability to provide substitutes, fend off pressures, turn away, alter the environment to organize, protect the self, and get needed help or support. We want to know about persistence, determination, usable antennae, and stable somatic integration. I have found Lois Murphy's Vulnerability Check List (15) the most useful means of assessing the potential areas of difficulty in young babies, as well as the positive components.

It used to be said that children with gross defects received the most attention, while those with milder or minimal distortions often had to wait until school age before their handicaps were recognized. More recently, it has been recognized that the blind, the deaf, and the cerebral palsied and otherwise brain-damaged child not infrequently present multiple handicaps that also may be overlooked because emphasis is placed on the major presenting problem. Fraiberg's work with blind babies illustrates this well (16). The athetotic cerebral palsied child who is trying to gain control of arm movement can be frustrated by a tendency to perseveration. The deaf child with hyperactivity may not be able to sit still or to con-

centrate long enough to find other communication patterns.

It may take only one major handicap to influence ego development, but we more often find a combination of minor ones that can frustrate the compensatory efforts of the organism to be as "normal" as possible. A passive child with a perceptual hypersensitivity to light, sound, touch, temperature, or pain cannot cope with stimuli that other babies could avoid. The hyperactive baby may on closer scrutiny be presenting an imbalance: his motor drives may be stronger than his coping devices or his capacity for love to bind them. This in turn can lead eventually to impulsiveness, destructiveness, and aggressiveness. One of the most difficult vulnerabilities to identify in early life is the tendency for thinking and coordination to become disorganized under stress. This becomes evident in the form of disorganization of motor activity. The stress situation in turn may also be related to other vulnerabilities in constitutional makeup, such as a low threshold for displeasure, hostility, or anxiety. The end result can be a feeling of helplessness, which is the worst feeling in the world. In contrast is the baby who becomes better organized under stress, like the clutch hitter in baseball. It is felt that this tendency is built into the organism at birth.

The purpose of identifying these individual differences in constitutional makeup (often described as components of the autonomous ego) is to insure the healthiest possible development of the rest of the ego functions. The child should be helped to develop an optimistic attitude and a positive approach to problem solving; the purpose of cataloguing this information is to help parents to be aware, to recognize the problem, to step in and assist in correcting the anxiety-producing situation. Likewise, in the case of the infant who is too compulsive and cannot shift away from a subject, the availability of someone who can change the scene or mood helps him develop a wider range of affect, more capacity for fun, joy, interest in new experiences, play, and ultimately creativity.

With a passive, low-energy infant outside help and stimulation are needed if he is to be enabled to overcome his initially poor capacity to exert effort, to struggle against

obstacles, and to keep on trying after a failure. Picture what happens if this baby has unaware or unavailable parents—parents who are so passive themselves that they cannot reach out to the child when he is unable to indicate his needs or demands.

The development of the sense of reality requires experience with and selective use of the environment. The child with perceptual-cognitive maldevelopment, for example (as in the much-abused concept of minimal brain damage), has difficulty in acquiring correct concepts of objects, space, time, etc., under certain conditions. These will occur, for example, if anger and frustration overwhelm him—if he has no outlets for discharge or mastery over his anxiety and no recognition of what he is struggling with, and if his caretakers have no recognition of the nature of his struggles.

The concept of self and body image can also be distorted under such conditions. The hyperactive child whose caretakers do not realize that he cannot stop himself and that he needs their help in putting the brakes on is particularly subject to distortions in these areas. He must avoid the feeling of helplessness at all costs. When a poorly controlled pat becomes a slap, he says "I wanted to hurt." When he inadvertently knocks a glass off the table, he says "I wanted to break it." Yet underneath these defenses he has a very poor opinion of himself. If this continues, he has a good chance of being a depressed, self-defeating school-age child and adolescent.

It is apparent that almost endless combinations of weaknesses, handicaps, strengths, and resources are possible. If we look closely we can find in each child his own unique combination. That many infants solve the problems posed by potential handicaps in the process of maturation and regulation is evident from the ones who seem to "grow out of it," i.e., whose developmental delays are overcome. In the National Institute of Neurological Diseases and Blindness collaborative study of pregnancies, births, and early childhood, 25 to 30 percent of babies in some cities were found to have evidences of neurological damage. But with proper handling, at the end of the first year only ten percent still showed such evidence. This ten percent is the group most vulnerable to poor solutions in

earliest personality development. That many infants can carry these poor solutions into later childhood and even adult life is also evident.

The Concept of "Organizers"

It has been pointed out that at the beginning of life there is no connection among the senses. They need to become coordinated and integrated to optimally negotiate the development of the ego functions, of memory, reality testing, the ability to think abstractly and to fantasy, to develop curiosity. In other words, there are "organizers" in the infant's experience. These form the beginnings of integration of functions and the development of the structural foundations that establish them for the rest of an individual's life. A major one is vision (1). Another organizer that we are finding out about is pain. However, to answer those who think only mechanistically about such developmental processes, there is evidence that affect must accompany the provision of stimuli in order to have effective ego development. It is the affect that makes it a fundamental educational experience and one that is permanent. Inputs without affect result in learning that is impermanent unless it is repeatedly reinforced.

Thus far I have concentrated on the newer dimensions that are important in the first steps in personality development, particularly as they throw light on the areas we should keep in our awareness in the interest of a healthy evolution of trust and dependency in object relations. There is no need to review the information available about the later stages of personality development in the first three years except to highlight the newer information that can be added to our understanding of the importance of selected stages.

The baby at an average of eight months is able to see himself as slightly independent when it is able to crawl away from its mother and to identify strangers and strange places; this stage of separation anxiety thus becomes another personality organizer. Inappropriate solutions to this first phase in the development of independence have been implicated as the precursors of later depressions (17), as well as to the persistence of fear of strangers and anxiety in the pres-

ence of anything new or different. More recently this stage has been implicated in the onset of leukemias (5), lymphomas, and lupus erythematosus (18). One type of poor handling in this stage has also been pointed to as responsible for a developmental defect that can be utilized later as a motivation for suicide. Thus when a baby, to demonstrate that it is not helpless when left by its mother, turns away from her and finds that his leaving or "getting rid" of her is a way of hurting her, it has learned an important lesson. There is an element of this kind of thinking in most suicides, i.e., thinking how the people left behind will feel (19).

The second and third years of life are very busy ones in terms of personality development; character formation proceeds actively and much of it simultaneously. To apply the concept of organizers to a few highlights in these years:

- The stage of negativism is an organizer of the will.

- Body image development is an organizer of self-respect. An important current problem in this area is the development of racism. When we ask at which ages a child begins to look at itself and ask "Is black or white or red or yellow good or bad, is it clean or dirty, is it beautiful or ugly?" we find it is in the third year of life that the first and often most important answers are established.

- Toilet training is one example of the processes of learning body control that are organizers of the individual's control system. This type of control is most actively developed in the second year of life and becomes integrated with the process of control over impulses. Inappropriate models provided for the child in the handling of aggressive impulses, particularly those that are overstimulating or distorted, can complicate this multidetermined process of "civilizing the drives." Violence as a way of life can have its beginnings here.

- As part of moving through further stages in the development of independence, another organizing process centers around exploration of property rights, "what's mine and what's yours." This becomes integrated with respect for rules, moral values, respect for privacy, territoriality, etc. The groundwork is laid here and in the control system

for later delinquency. Later the lessons learned are carried into the exploration of "who is mine and who is yours."

Conclusion

These few examples indicate how those concerned with the problems of human behavior must be concerned with the first three years of life if the roots of later pathology are to be identified in the interest of prevention and early modification. Poor answers in the early stages can complicate later stages and lock in place poor problem-solving techniques, patterns of reaction, and fears. They can lead to a closure of lines of development; a preoccupation with avoidance of discomfort, with emphasis on immediate pleasure; a poor self-concept; and many other possible distortions. We can recognize these as elements of personal malfunctioning later in childhood and indeed, in too many individuals, for the rest of their lives.

The purpose of this overview is to indicate that psychiatry and particularly child psychiatry have neglected the time in the life cycle when they can most profitably open a new frontier. Our training programs have not been concerned with the problems that are available for solution in the first years of life. Nor have we developed the necessary partnerships with those who have been concerned with this time of life. Let us move to fill this gap.

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Nor is it even possible for anyone to say while life lasts: "That is something that will not be my lot!"

—MENANDER